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Umbelliferae in Japan II

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In this paper 14 genera are treated, they are *Chamaele*, *Pimpinella*, *Cicuta*, *Sium*, *Apium*, *Oenanthe*, *Apodicarpum*, *Cnidium*, *Libanotis*, *Ligusticum*, *Peucedanum*, *Glehnia*, *Conioselinum* and *Coelopleurum*. (Continued from J. Jpn. Bot. **76**: 137–150, 2001)

Key words: Japan, Taxonomy, Umbelliferae

12. **Chamaele** Miq.

Miq. in Ann. Mus. Lugd.-Bat. **3**: 59 (1867).

1. **Chamaele decumbens** (Thunb.) Makino in Bot. Mag. Tokyo **17**: 14 (1903); H.Hara, Enum. Sperm. Jap. **3**: 304 (1954), cum f. *dilatata* Satake & Okuyama, var. *gracillima* H.Wolff, var. *japonica* (Yabe) Makino et var. *micrantha* Masam.; Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 35, f. 17 (1958); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 281 (1999).

Sium decumbens Thunb., Fl. Jap.: 118 (1784).

Chamaele tenera Miq. in Ann. Mus. Bot. Lugd.-Bat. **3**: 60 (1867).

Carum tenerum (Miq.) Kozo-Pol. in Bull. Soc. Nat. Moscou, n. s. **29**: 199 (1916).

Aegopodium tenerum (Miq.) Yabe, Rev. Umbel. Jap.: 46, t. 1, f. 22–23 (1902), cum var. *japonicum* Yabe.

Chamaele decumbens (Thunb.) Makino var. *japonica* (Yabe) Makino in IInuma, Somokuzusetsu, ed. Makino **1**: 364 (1907).

Chamaele decumbens (Thunb.) Makino var. *gracillima* H.Wolff in Pfl.-reich IV 228, Ht. **90**: 333 (1927).

Chamaele decumbens (Thunb.) Makino var. *micrantha* Masam. in J. Trop. Agric. **4**: 76 (1932).

セントウソウ

Distr.: Hokkaido, Honshu, Shikoku and Kyushu. In forests; lowlands to 1700 m. Endemic.

Note: Several varieties or forms have been reported on the basis of the plant-size and the leaf-shape. These characteristics are very variable and it is difficult to separate the taxa clearly based on them.

13. **Pimpinella** L.

L., Sp. Pl.: 263 (1753).

Spuriopimpinella Kitag. in J. Jpn. Bot. **17**: 558 (1941).

A. Pedicels and calyx-tubes glabrous; calyx without or with conspicuous sepals.
  B. Calyx with conspicuous sepals (Sect. 1. Spuriopimpinella).
    C. Leaves serrate, upper surface glabrous except puberulent on nerves; fruits ovoid or oblong-ovoid, the length longer than the width .... 1. *P. calycina*
    C. Leaves deeply serrate, upper surface sparsely pubescent; fruits globose-ovoid, the length generally as long

as the width..............2. *P. nikoensis*

B. Calyx without sepals (Sect. 2. Pimpinella)

C. Leaves 3–5-foliolate, leaflets boradly lanceolate to ovate, acuminate, 3–10 cm long, 1–4 cm wide, glabrous on both surfaces..............3. *P. serra*

C. Leaves 5–7-foliolate, leaflets orbicular-ovate to broadly ovate, obtuse and mucronate at apex, 1–3 cm long, and wide, hirsute beneath.......
.............................4. *P. thellungiana*

A. Pedicels and calyx-tube shortly hirsute; sepals inconspicuous (Sect. 3. Tragium)
....5. *P. diversifolia*

Sect. 1. **Spuriopimpinella** (Boiss.) Yamazaki, stat. nov.

Pimpinella group *Spuriopimpinella* Boiss. in Bull. Soc. Bot. Fr. **53**: 428 (1906).

Pimpinella subsect. *Spuriopimpinella* Boiss. ex H.Wolff in Pfl.-reich, IV, 228, Ht. **90**: 276 (1927).

Spuriopimpinella (Boiss.) Kitag. in J. Jpn. Bot. **17**: 558 (1941).

1. **Pimpinella calycina** Maxim. in Bull. Acad. Sci. St.-Pet. **19**: 182 (1873); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 44, f. 22 (1958); F.T.Pu, Fl. Reip. Popul. Sinic. **55** (2): 107 f. 42 (1985).

Carum calycinum (Maxim.) Koso-Pol. in Bull. Soc. Nat. Moscou, n. s. **29**: 199 (1916).

Spuriopimpinella calycina (Maxim.) Kitag. in J. Jpn. Bot. **17**: 559 (1941); H.Hara, Enum. Sperm. Jap. **3**: 325 (1954); H.Ohba in K.Iwats. & al. eds., Fl. Jap., **IIc**: 279 (1999).

カノツメソウ，ダケゼリ

Japan: S. Hokkaido, Honshu, Shikoku and N. Kyushu. In forests on mountains; 200–1200 m.

Dsitr.: Japan, Korea and Manchuria.

2. **Pimpinella nikoensis** Yabe ex Makino & Nemoto, Fl. Jap. ed. **1**: 463 (1925).

Pimpinella nikoensis Yabe in Bot. Mag. Tokyo **17**: 106 (1903), nom. nud.

Spuriopimpinella nikoensis (Yabe ex Makino & Nemoto) Kitag. in J. Jpn. Bot. **17**: 560 (1941); H.Hara, Enum. Sperm. Jap. **3**: 325 (1954).

Pimpinella koreana auct. non Yabe: Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 41, t. 21 (1958).

Spuriopimpinella koreana auct. non Yabe: H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 279 (1999).

ヒカゲミツバ

Japan: C. to W. Honshu (westward from Fukushima Pref.), Shikoku and Kyushu. In forests on mountains; 300–1800 m.

Distr.: Japan and S. Korea (Isl. Cheju).

f. **dissecta** (Nakai) Yamazaki, comb. nov.

Pimpinella nikoensis Yabe ex Makino & Nemoto var. *dissecta* Nakai ex Hisauti in J. Jpn. Bot. **13**: 460 (1937).

Spuriopimpinella nikoensis (Yabe ex Makino & Nemoto) Kitag. f. *dissecta* (Nakai) Ohwi in Bull. Nat. Sci. Mus. no. **33**: 81 (1953).

ハゴロモヒカゲミツバ

Distr.: The same with f. *nikoensis.*

Note. This species resembles *P. koreana* (Yabe) Nakai in Korea and China (Zhajieng), but the latter has leaves glabrous on both surfaces except for short-pubescent hairs on margin and the leaflets deeply lobed or parted. In *P.nikoensis*, leaves sparsely hirsute on both surfaces and the leaflets serrate, not lobed.

Sect. 2. **Pimpinella**.

Sect. *Tragoselinum* (Mill.) DC., Prodr. **4**: 119 (1830).

3. **Pimpinella serra** Franch. & Sav., Enum. Pl. Jap. **2**: 372 (1877); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 49; 49 f. 25 (1958); F.T.Pu, Fl. Reip. Popul. Sinic. **55** (2): 92, f. 34, 7–10 (1985).

Sium serra (Franch. & Sav.) Kitag. in J. Jpn. Bot. **17**: 562 (1941); H.Hara, Enum.

Sperm. Jap. **3**: 324 (1954); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 284 (1999).

タニミツバ

Japan: Hokkaido and N. to C. Honshu. In wet meadows on mountains; 500–1000 m in Honshu, lowlands in Hokkaido.

Distr.: Japan and C. China (Anhwei).

4. **Pimpinella thellungiana** H.Wolff in Engl. Pfl.-reich IV-228, Ht. **90**: 304 (1927); Schischk., Fl. URSS **16**: 429 (1950); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 46, t. 24 (1958); F.T.Pu, Fl. Reip. Popul. Sinic. **55** (2): 94, f. 35, 1–3 (1985).

Pimpinella gustavohegiana Koidz. in Mayebara, Fl. Austr.-Higo: 84 (1931); in Act. Phytotax. Geobot. **1**: 26 (1932); H.Hara, Enum. Sperm. Jap. **3**: 319 (1954).

Pimpinella thellungiana H. Wolff var. *gustavohegiana* (Koidz.) Kitam. ex Ohwi, Fl. Jap. ed. Engl.: 674 (1965); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 281 (1999).

ツクシボウフウ

Japan: N. Kyushu (Oita Pref.). In meadows on hills or mountains; 600–1000 m

Distr.: Japan, Korea (Is. Chejudo), Manchuria, N. China and Ussuri to Dahuria.

Sect. 3. **Tragium** (Spreng.) DC., Prodr. **4**: 120 (1830).

5. **Pimpinella diversifolia** DC., Prodr. **4**: 122 (1830); H.Hara, Enum. Sperm. Jap. **3**: 319 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 46, f. 23 (1958); F.T.Pu, Fl. Reip. Popul. Sinic. **55** (2): 70 (1985); H.Ohba in K.Iwats. & al. eds., Fl Jap. **IIc**: 280 (1999).

Helosciadium trifoliatum DC., Prod. **4**: 106 (1830).

Platyrhaphe japonica Miq. in Ann. Mus. Lugd.-Bat. **3**: 56 (1897).

Pimpinella sinica Hance in Journ. Bot. **6**: 113 (1868).

ミツバグサ

Japan: Kyushu. In sunny and more or less dry meadows on mountains; 500–1000 m.

Distr.: Kyushu, Taiwan, C. to S. China, Indochina, Himalaya and Afghanistan.

14. **Cicuta** L.

L., Sp. Pl.: 255 (1753).

1. **Cicuta virosa** L., Sp. Pl.: 255 (1753); H.Hara, Enum. Sperm. Jap. **3**: 305 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 64, f. 33 1958; S.L.Liou, Fl. Reip. Popul. Sinic. **55** (2): 10, f. 3 (1985); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 282 (1999).

Cicuta nipponica Franch. in Bull. Soc. Bot. Fr. **26**: 84 (1879).

Cicuta virosa L. var. *nipponica* (Franch.) Makino in Bot. Mag. Tokyo **19**: 88 (1905).

ドクゼリ

Japan: Hokkaido, Honshu, Shikoku and Kyushu. In wet meadows at low altitudes to 1600 m.

Distr.: Throughout warm-temperate to subarctic regions in the Northern Hemisphere.

Note: A form with the narrow linear leaflets less than 2 mm wide has been named f. *angustifolia* (Kitaib.) Schube (Verbreit. Gef. Schles. Oesterr. Ant.: 233, 1903).

15. **Sium** L.

L., Sp. Pl.: 251 (1753).

A. Rhizome short, with several stout roots and many fiburous ones; leaflets (3–) 5–11, the terminal one distinctly petiolulate; axillary bulbils none;fruits ellipsoid ....1. *S. suave*

A. Rhizome fleshy, with several fusiform roots only; leaflets 3–5, the terminal one sessile; axillary bulbils present; fruits globose-ovoid..........................2. *S. ninsi*

1. **Sium suave** Walter, Fl. Carol.: 115 (1788); H.Hara, Enum. Sperm. Jap. **3**: 324 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 68, f. 35 (1958); T.S.Wang,

Fl. Reip. Popul. Sinic. **55** (2) 155, f. 64 (1985); H.Ohba in K.Iwats. & al. ed., Fl. Jap. **IIc**: 283 (1999).

Sium cicutaefolium Schrank, Baier. Fl. **1**: 558 (1789); H.Wolff in Pfl.-reich, IV-228, Heft. **90**: 346 (1927).

Sium nipponicum Maxim. in Bull. Acad. Sci. St.-Pet. **18**: 286 (1873).

Sium ovatum Yatabe in Bot. Mag. Tokyo **5**: 53, t. 22 (1891).

Sium suave Walt. var. *nipponicum* (Maxim.) H.Hara in J. Fac. Sci. Univ. Tokyo, sect. 3, Bot. **6**: 95 (1952), in nota.

Sium nipponicum Maxim. var. *ovatum* (Yatabe) Yabe in J. Coll. Sci. Univ. Tokyo **16** (4): 53 (1902).

Sium suave Walt. subsp. *nipponicum* (Maxim.) Sugim., Keys Herb. Pl. Jap. ed. **1**: 736 (1965).

Sium suave Walt. var. *tenuissimum* Kitag. in J. Jpn. Bot. **42**: 100 (1967).

ヌマゼリ

Japan: Hokkaido, Honshu, Shikoku and Kyushu. In wet meadows or shallow ponds at lowlands.

Distr.: Japan, Korea, Manchuria, Sakhalin, Siberia to Europe and N. America.

Note. Japanese plants have been separated into several forms on the basis of leaf shape. They are f. *nipponicum* (Maxim.) Kitag., f. *ovatum* (Yatabe) H.Hara ex Hiyama and f. *tenuissimum* Kitag. But the leaf shape of this species is so variable to separate these forms is difficult.

2. **Sium ninsi** L., Sp. Pl.: 251 (1753); H.Hara, Enum. Sperm. Jap. **3**: 323 (1954).

Sium sisarum auct. non L.: Thunb., Fl. Jap.: 118 (1784), p. p.; Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 68, f. 34 (1958); Ohwi, Fl. Jap. ed. 2: t. 985 (1975); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 283 (1999).

ムカゴニンジン

Japan: Hokkaido, Honshu, Shikoku and Kyushu. In wet lowland meadows.

Distr.: Japan and Korea.

Note. *Sium sisarum* L. (Sp. Pl.: 251, 1753) is presumably described from the cultivated plant. This plants is widely cultivated throughout Europe and Russia as a vegetable and is known only in cultivation. Relationship between *S. ninsi* and *S. sisarum* is to be re-investigated.

16. **Apium** L.

L., Sp. Pl.: 264 (1753).

1. **Apium tenuifolium** (Moench) Thell. in Hegi, Ill. Fl. Mitt. Eur. **5** (2): 1140 (1926).

Cnidium tenuifolium Moench, Meth, Pl. Marburg: 98 (1794).

Pimpinella leptophylla Pers., Syn. Pl. **1**: 324 (1805).

Apium ammi auct. non L.: Urban in Mart., Fl. Brasil. **2** (1): 341 (1879).

Apium leptophyllum (Pers.) F.Muell in Benth. & Muell., Fl. Austral. **3**: 372 (1866).

マツバゼリ

Japan: A native of tropical America, natularized in C. to W. Honshu, Shikoku, Kyushu and Ryukyu.

Distr.: Throughout tropical eastern Asia, Pacific Islands and Australia.

Subtribe 2. **Seselinae** Drude

Drude, in Engl. & Prantl, Nat. Pflanzenfam. III, **8**: 198 (1898).

17. **Oenanthe** L.

L., Sp. Pl.: 254 (1753).

A. Dorsal ribs of mericarps protruding, distinctly ridged; ultimate segments of upper leaves obovate or rhomboid-oblanceolate........................1. *O. javanica*

A. Dorsal ribs of mericarps filiform, slightly protruding; ultimate segments of upper leaves linear........................2. *O. linearis*

1. **Oenanthe javanica** (Bl.) DC., Prodr. **4**: 138 (1830); H.Hara, Enum. Sperm. Jap.

3: 314 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 62, f. 32 (1958); T.S.Wang, Fl. Reip. Popul. Sinic. **55** (2): 202, f. 81, 1–4 (1985); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 280 (1999).

var. **javanica.**

Sium javanicum Bl., Bijdr. Fl. Ned. Ind. **15**: 881 (1826).

Phellandrium stoloniferum Roxb., Fl. Ind. ed. 2, **2**: 93 (1832).

Oenanthe stolonifera (Roxb.) DC., Prodr. **4**: 138 (1830).

Oenanthe decumbens Koso-Pol. in Bull. Soc. Nat. Moscou, n. s. **29**: 130, f. 7 (1916).

Oenanthe javanica (Bl.) DC. subsp. *stolonifera* (Roxb.) Murata in Act. Phytotax. Geobot. **25**: 105 (1973).

セリ

Japan: Hokkaido, Honshu, Shikoku, Kyushu and Ryukyu. In ditches, ponds and paddy fields at lowlands.

Distr.: Japan, Korea, Taiwan, China, Indochina and Malaysia (including the Philippines and New Guinea).

var. **japonica** (Miq.) Honda, Nom. Pl. Jap.:250 (1939).

Sium laciniatum Blume, Bijdr. Fl. Ned. Ind.: 881 (1826).

Oenanthe laciniata Zolling., Syst. Verz. **II**: 139 (1854).

Dasyloma japonicum Miq. in Ann. Mus. Lugd.-Bat. **III**: 59 (1867).

Oenanthe stolonifera (Roxb.) DC. var. *japonica* (Miq.) Maxim. ex Franch. & Sav., Enum. Pl. Jap. **I**: 185 (1875).

Oenanthe japonica (Miq.) Drude in Engl. & Prantl., Nat. Pflanzenfam. **III**, 8: 204 (1897).

サケバゼリ

Distr.: S. Kyusyu, Ryukyu, Taiwan and Malaysia.

Key to the varieties of *Oenanthe javanica*

A. Leaves generally twice ternate, ultimate segmants 10–35 mm long, 5–15 mm wide ....var. *javanica*

A. Leaves generally thrice ternate, ultimate segments 4–15 mm long, 2–10 mm wide ....var. *japonica*

2. **Oenanthe linearis** Wall. ex DC., Prodr. **4**: 138 (1830); T.S.Wang, Fl. Reip. Pop. Sinic. **55** (2): 204, f. 82, 1–3 (1985); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 280 (1999).

Oenanthe javanica (Bl.) DC. subsp. *linearis* (Wall. ex DC.) Murata in Act. Phytotax. Geobot. **25**: 103 (1973).

イトバゼリ

Japan: the Ryukus (Is. Amamiohshima).

Distr.: the Ryukyus, Taiwan, W. China, Nepal, India and Indochina.

18. **Apodicarpum** Makino

Makino, Ill. Fl. Jap. **1** (10): 1, t. 58 (1891).

The monotypic genus *Apodicarpum* closely resembles *Oenanthe* L. but differs from it by inconspicuous sepals, short and erect styles, and the orbicular transverse section of mericarp with five subequal linear ridges. In the genus *Oenanthe* the transverse section of mericarpe is triangular semi-orbicular and has three obtuse filiform ridges on dorsal side and two very corky ones on lateral sides.

1. **Apodicarpum ikenoi** Makino, Ill. Fl. Jap. **1** (10): 1, t. 58 (1891); H.Hara, Enum. Sperm. Jap. **3**: 300 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 60, f. 31 (1958); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **2c**: 282 (1999).

Apium ikenoi (Makino) Drude in Engl. et Plantl, Nat. Pflanzenfam. III, **8**: 185 (1897).

エキサイゼリ

Distr.: C. Honshu (Saitama, Chiba and Aich Prefs.). In wet lowland meadow. Endemic.

19. **Cnidium** Cusson

Cusson in Mem. Soc. Med. Paries, **1782**: 282 (1782).

1. **Cnidium japonicum** Miq. in Ann. Mus. Bot. Lugd.-Bat. **3**: 60 (1867); H.Hara, Enum. Sperm. Jap. **3**: 306 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 85, f. 44 (1958); H.T.Chang, Fl. Reip. Popul. Sinic. **55** (2): 225 (1985); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 284 (1999).

Selinum japonicum (Miq.) Franch. & Sav., Enum. Pl. Jap. **1**: 186 (1875).

ハマゼリ

Japan: Hokkaido, Honshu, Shikoku, Kyushu and Ryukyu. In sandy seashors.

Distr.: Japan, Korea and S. Manchuria.

20. **Pterygopleurum** Kitag.

Kitag. in Bot. Mag. Tokyo **51**: 654, f. (1937).

3. **Pterygopleurum neurophyllum** (Maxim.) Kitag. in Bot. Mag. Tokyo **51**: 655, f. (1937); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 81, f. 42 (1958); T.S.Wang, Fl. Reip. Popul. Sinic. **55** (2): 219 f. 89 (1985); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **2c**: 279 (1999).

Edosmia neurophyllum Maxim. in Bull. Acad. Nat. Sci. St.-Pet. **18**: 285 (1873).

Sium neurophyllum (Maxim.) H.Hara, Enum. Sperm. Jap. **3**: 323 (1954).

シムラニンジン

Japan: C. Honshu (Saitama Pref.) and N. Kyushu (Oita Pref.). In wet lowland meadows.

Distr.: Japan, Korea and C. China.

21. **Libanotis** Haller

Haller ex Zinn, Cat. Pl. Hort. Goett.: 226 (1757).

Sesseli L. subgen. *Libanotis* Gren. & Gordr. ex Drude in Engl. & Prantl, Nat. Pflanzenfam. III, **8**: 203 (1898).

1. **Libanotis ugoensis** (Koidz.) Kitag. in Bot. Mag. Tokyo **51**: 658 (1937).

Sesseli ugoensis Koidz. in Muramatsu, Fl. Akita: 5 (1932), in Act. Phytotax.Geobot. **1**: 25 (1932); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 70, f. 36 (1958), proparte, excl. syn.

Seseli libanotis (L.) Koch subsp. *japonica* (Boiss.) H.Hara f. *ugoensis* (Koidz.) H.Hara, Enum. Sperm. Jap. **3**: 323 (1954).

Libanotis coreana (H.Wolff) Kitag. f. *ugoensis* (Koidz.) Kitag. in J. Jpn. Bot. **38**: 104 (1963).

var. **ugoensis**.

ハマイブキボウフウ

Distr.: Hokkaido and Honshu, generally Japan Sea side. In sandy seashors.

var. **japonica** (Boiss.) Yamazaki, comb. nov.

Seseli libanotis (L.) Koch var. *japonica* Boiss. in Bull. Soc. Bot. Fr. **56**: 354 (1909), in nota.

Seseli libanotis (L.) Koch subsp. *japonica* (Boiss.) H.Hara in J. Fac. Sci.Univ. Tokyo, sect. 3, Bot. **6**: 94 (1952); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 284 (1999).

Libanotis ugoensis (Koidz.) Kitag. f. *japonica* (Boiss.) Kiatg. in Bull. Nat. Sci. Mus., n. s. **5**: 23 (1960).

Libanotis coreana auct. non H.Wolff: Kitag. in J. Jpn. Bot. **38**: 105 (1963).

イブキボウフウ

Distr.: Hokkaido, Honshu (northward from Kinki Distr.) and Shikoku (Tokushima Pref.). In sunny meadous on hills and mountains;100–1800 m. Endemic.

Note. *Libanotis ugoensis* has cyrindrical and slightly ribbed stem, sparsely short-hairy petals outside, and distinctly pubescent hairy petioles and leaf-margines. It resembles *L. sesseloides* (Fisc. & Mey.) Turcz. in N. Korea, Manchuria, C. to N. China and Siberia to Europe. But the latter has tripinnatisect leaves with linear-lanceolate and acuminate ultimate segments, and is glabrous or glabrescent all over. *L. ugoensis* has been frequently treated as the same species with *L. vulgaris* DC. (*Seseli libanotis* L.) in Europe or with *L. montana* Cranz in Russia and Europe. However, the latter two have markedly angular and strongly ribbed stems, and glabrous petals outside.

var. **kurilensis** (Takeda) Yamazaki, comb. nov.

Seseli libanotis (L.) Koch var. *kurilensis* Takeda in J. Linn. Soc. Bot. **42**: 467 (1914).

チシマイブキボウフウ

Distr.: S. Kuriles.

var. **alpicola** (Kitag.) Yamazaki, comb. nov.

Libanotis coreana (H.Wolff) Kitag. var. *alpicola* Kitag. in J. Jpn. Bot. **38**: 106 (1963).

Sesseli libanotis L. subsp. *japonica* (Boiss.) H.Hara var. *alpicola* (Kitag.) H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 285 (1999).

f. **alpicola**

タカネイブキボウフウ

Distr.: C. Honshu; Hida mountain range. On rocks or alpine meadows, 2000–3000 m.

f. **akaishi-aplina** Yamazaki, f. nov.

ケタカネイブキボウフウ

Pedicelli calycesque fructus dense hirtelli.

Typus: Yamanashi pref. Mt. Akaishi, 2600 m (Yamazaki, Matsuda & Fujita, Aug. 3, 1954, s. n., TI).

Distr.: C. Honshu; Akaishi mountain-ranges, Mt. Yatsu and Mt. Tanigawa.

Key to the varieties and forms of *Libanotis ugoensis*

A. Leaflets cleft or lobed, lobes subacute and mucronate.
  B. Stems 60–100 cm tall; fruits densely hirtellous.........................var. *ugoensis*
  B. Stems ca. 20 cm tall; fruits papillate-puberulent......................var. *kurilensis*
A. Leaflets deeply cleft, lobes acute.
  B. Calyx-tube and fruits papillate-puberulent or sparsely hirsute; bractlets of umbellets 5–6, linear or setaceous, much shorter than the flowers. ....var. *japonica*
  B. Calyx-tube and fruits papillate-puberulent or densely hirtellous; bractlets of umbellets ca. 10, linear-lanceolate, slightly shorter or as long as the flowers..................var. *alpicola*
    C. Calyx-tube and fruits papillate-puberulent........................f. *alpicola*
    C. Calyx-tube and fruits densely hirtellous ....f. *akaishi-alpina*

22. **Ligusticum** L.

L., Sp. Pl.: 250 (1753).

Tilingia Regel in Regel & Tiling, Fl. Ajan.: 97 (1858).

Dystaenia Kitag. in Bot. Mag. Tokyo **51**: 805 (1937).

A. Leaves once or twice ternate, segments rhombic-ovate.
  B. Stems stout, 40–100 cm tall; leaflets serrate, sometimes deeply 3-lobed; fruits oblong, 8–11 mm long...1. *L. hultenii*
  B. Stems slender, 20–40 cm tall; leaflets irregularly lobed; fruits ca. 2 mm long ....2. *L. tsusimense*
A. Leaves twice to fourth ternate; ultimate segments ovate or linear.
  B. Leaves mostly cauline; stems 40–80 cm tall, not scape-like.
    C. Leaves scabrous on nerves beneath and margin; umbels with 10–20 rays; pedicels scabrous inside; bracteoles scabrous...3. *L. ibukiense*
    C. Leaves, pedicels and bracteoles glabrous; umbels with 7–11 rays..... ....4. *L. holopetalum*
  B. Leaves mostly radical; stems scape-like, with 1–3 small leaves.
    C. Ultimate leaf-segments ovate or narrowly obovate, deeply lobed; styles ca.0.5 mm long at fruiting, slightly longer than the stylopodium ....5. *L. ajanense*
    C. Ultimate leaf-segments linear, entire; styles ca. 1 mm long at fruiting, ca. 3 times as long as the stylopo-

dium..........................6. *L. tachiroei*

1. **Ligusticum hultenii** Fernald in Rhodora **32**: 7, t. 194 (1930); H.Hara, Enum.Sperm. Jap. **3**: 313 (1954); Schischk., Fl. URSS **16**: 569 (1973); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 287 (1999).

Ligusticum scoticum auct. non L.: Maxim. in Bull. Acad. Sci. St.-Pet. **19**: 272 (1873); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 79, f. 41 (1958).

Angelica hultenii (Fernald) Hiroe in Acta Phytotax. Geobot. **14**: 29 (1949).

マルバトウキ

Japan: S. Kuriles, Hokkaido and N. Honshu. In sandy seashors.

Distr.: Japan, Sakhalin, Kuriles, Kamchatka, Alaska, Ussuri and N. Korea.

2. **Ligusticum tsusimense** Yabe in Bot. Mag. Tokyo **18**: 30 (1904); H.Hara, Enum. Sperm. Jap. **3**: 313 (1954).

Ostericum tsusimense (Yabe) Kitag. in J. Jpn. Bot. **27**: 203 (1952).

Pimpinella tsusimensis (Yabe) Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 41, f. 20 (1958).

Tilingia tsusimensis (Yabe) Kitag. in J. Jpn. Bot. **43**: 187 (1963); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 287 (1999).

ツシマノダケ，ツシマトウキ

Japan: Kyushu, Tsusima Isl. In dry meadows on limestones.

Distr.: Kyushu and Korea,

3. **Ligusticum ibukiense** Yabe in J. Coll. Sci. Univ. Tokyo **16** (4) (Rev. Umbel.Jap.): 68, t. 2, f. 40 (1902); Hiroe & Constance in Univ, Calif. Publ. Bot. **30**: 73, f. 37 (1958).

Angelica ibukiensis Makino ex Yabe, Rev. Umbel. Jap.: 68 (1902), pro syn; H.Hara, Enum. Sperm. Jap. **3**: 296 (1954).

Dystaenia ibukienesis (Yabe) Kitag. in Bot. Mag. Tokyo **51**: 806, f. 1(1937); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 288 (1999).

セリモドキ

Distr.: N. to C. Honshu (northward from Hyogo Pref.). In sunny meadows on hills and mountians; low altitudes to 1000 m. Endemic.

4. **Ligusticum holopetalum** (Maxim.) Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 78, t. 40 (1958).

Carum holopetalum Maxim. in Bull. Acad. Sci. St.-Pet. **31**: 48 (1886).

Tilingia holopetala (Maxim.) Kitag. in J. Jpn. Bot. **21**: 74 (1947); H.Hara, Enum. Sperm. Jap. **3**: 327 (1954); Murata in Act. Phytotax. Geobot. **26**: 27 (1974); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 286 (1999).

イブキゼリモドキ

Distr.: Hokkaido and N. to C. Honshu (northward form Fukui Pref. generally in Japan Sea side in C. Honshu). Edges of deciduous forests on mountains, more or less wet places; 500–2000 m. Endemic.

5. **Ligusticum ajanense** (Regel) Kozo-Pol. in Bull. Soc. Nat. Moscou, n. s. **29**: 120 (1916); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 76, f. 39 (1958); H.T.Chang, Fl. Reip. Popul. Sinic. **55** (2): 253, f. 106, 5–6 (1985).

Tilingia ajanensis Regel in Regel & Tiling, Fl. Ajan.: 97 (1858); H.Hara, Enum. Sperm. Jap. **3**: 326 (1954); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 286 (1999).

Cnidium ajanense (Regel) Drude in Nat. Pfl.-fam. III, **8**: 210 (1897); Schischk., Fl. URSS **16**: 553 (1973).

var. **ajanense**.

シラネニンジン

Japan: S. Kuriles, Hokkaido and N. to C. Honshu. In alpine meadows; 1600–3000 m.

Distr.: Japan, Sakhalin, Kuriles, Kamchatka, Ochotsk region, E. Siberia Manchuria and C. China.

var. **angustissimum** (Nakai ex H.Hara) Yamazaki, comb. nov.

Cnidium ajanense (Regel) Drude var.

angustissimum Nakai ex H.Hara in Bot. Mag. Tokyo. **50**: 369, f. 16 (1936).

Tilingia ajanensis Regel var. *angustissima* (Nakai ex H.Hara) Kitag. in Bot. Mag. Tokyo **51**: 656 (1937).

ヒメシラネニンジン

Dsitr.: Hokkaido, Mt. Apoi.

Key to the varieties of *Ligusticum ajanense*

A. Ultimate segments of leaves ovate to narrowly oblong.......................var. *ajanense*
A. Ultimate segments of leaves linear...var. *angustissimum*

6. **Ligusticum tachiroei** (Franch. & Sav.) Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 74, t. 38 (1958); H.T.Chang, Fl. Reip. Popul. Sinic. **55** (2): 242 (1985).

Seseli tachiroei Franch. & Sav., Enum. Pl. Jap. **2**: 373 (1877).

Cnidium tachiroei (Franch. & Sav.) Makino in Bot. Mag. Tokyo **20**: 94 (1906).

Ligusticum koreanum H.Wolff in Rep. Sp. Nov. Veget. **17**: 154 (1921).

Tilingia tachiroei (Franch. & Sav.) Kitag. in Bot. Mag. Tokyo **51**: 656 (1937); H.Hara, Enum. Sperm. Jap. **3**: 327 (1954); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 286 (1999).

ミヤマウイキョウ

Japan: S. Hokkaido, N. to C. Honshu and Shikoku (Mt. Tsurugi). In alpine meadows, 2500 to 3000 m, or on rocky slopes of limestones,1000–1200 m.

Distr.: Japan, Korea, Manchuria and N. China.

Tribe 4. **Peucedaneae** Drude

Drude in Engl. & Prantl, Nat. Pflanzenfam. III, **8**: 115, 215 (1898).

Subtribe 1. **Peucedaninae**

Ferulinae Drude in Engl. & Prantl, Nat. Pflanzenfam. III, **8**: 223 (1898).

23. **Peucedanum** L.

L., Sp. Pl.: 245 (1753).

Kitagawia Pimenov in Bot. Zhurn. **71**: 943 (1986).

A. Leaves thickly papyraceous, more or less fleshy, slightly glaucous, leaflets with a few coarse teeth on upper part, middle to lower margin entire; sepals inconspicuous; fruits puberulent (Sect. 1. Bracteolata)..............................1. *P. japonicum*
A. Leaves membranaceous or thickly membranaceous, green, leaflets toothed or lobed throughout on margin; fruits glabrous.
  B. Leaves once or twice ternately pinnate, leaflets orbicular-ovate or ovate; bracteoles absent (Sect. 2. Macroselinum).......................2. *P. multivittatum*
  B. Leaves twice or thrice ternately pinnate, leaflets ovate; bracteoles present.
    C. Marginal wings of fruit thin, membranaceous; leaves mostly cauline, with narrow sheath, twice ternately pinnate; leaflets adnate into petiolules; fruits 4–5 mm long, 3 mm wide (Sect. 3. Selinoides)......3. *P. terebinthaceum*
    C. Marginal wings of fruit thick; leaves mostly radical and lower cauline, with inflated sheath, thrice ternately pinnate; leaflets not adnate into petiolules; fruit 2–3 mm long (Sect. 4. Oreoselinum).
      D. Plant 15–30 cm tall; bracteoles setaceous, entire; sepals depressedly ovate, inconspicuous; fruits ca. 3 mm long, 2 mm wide, lateral wings ca. 0.5 mm wide......................4. *P. longeradiatum*
      D. Plant 4–10 cm tall; bracteoles mostly ovate, with 2–3 linear lobes, sometimes linear and entire; sepals distinct, narrowly ovate, acute; fruits ca. 2 mm long, 1 mm wide, lateral wings ca. 0.2

mm wide........5. *P. yakushimense*

Sect. 1. **Bracteolata** Sheh & Shan in Bull. Nanjing Bot. Gard. Mem. Sun Yat-Sen **1988**: 115 (1988), not seen; M.Sheh, Fl. Reip. Popul. Sinic. **55** (3): 132 (1992).

1. **Peucedanum japonicum** Thunb., Fl. Jap.: 117 (1784); H.Hara, Enum. Sperm. Jap. **3**: 317 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 135, f. 72(1958); M.Sheh, Fl. Reip. Popul. Sinic. **55** (3): 144, f. 62 (1979); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 300 (1999); Seo & Hotta in Act. Phytotax.Geobot. **51**: 99 (2000).

Anethum japonicum (Thunb.) Koso-Pol. in Bull. Soc. Nat. Moscou n. s. **19**: 117 (1916).

var. **japonicum**.

ボタンボウフウ

Distr.: C. to W. Honshu (southward from Chiba Pref.), Shikoku and Kyushu. Seashors. Endemic as a varaiety.

var. **latifolium** Hotta & Shiuchi in J. Jpn. Bot. **71**: 183 (1996).

コダチボタンボウフウ

Distr.: S. Kyushu (Isl. Yaku and Isls. Tokara). Endemic as a variety.

var. **australe** Hotta & Seo in Act. Phytotax. Geobot. **71**: 113 (2000).

ナンゴクボタンボウフウ

Japan: Southern Tokara Isls. (Isl. Takara), The Ryukyus (south of Isl. Amamiohshima).

Distr.: Japan, Taiwan and the Philippines (Isls. Batan).

Key to the varieties of *Peucedanum japonicum*

A. Plants monocarpic or polycarpic; 10–100 (150) cm tall; terminal leaflets cuneate at base.
  B. Flowers in September to November; growing on sedimentary rocks or igneous rocks ....var. *japonicum*
  B. Flowers in May to July; generally growing on limestone......var. *australe*
A. Plants usually monocarpic; (50–) 100–300 cm tall; terminal leaflets broadly cuneate, truncate or cordate at base ....var. *latifolium*

Sect. 2. **Macroselinum** (Schur.) Schischk., in Fl. USSR. **17**: 191 (1974).

2. **Peucedanum multivittatum** Maxim. in Bull. Acad. Sci. St.-Pet. **31**: 52 (1886); H.Hara, Enum. Sperm. Jap. **3**: 318 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 135, f. 73 (1958); H.Ohba in K.Iwats & al. eds., Fl. Jap. **IIc**: 301 (1999).

ハクサンボウフウ

Distr.: Hokkaido and N. to C. Honshu. In subalpine to alpine meadows; 1000–2300 m. Endemic.

f. **dissectum** Makino in J. Jpn. Bot. **3**: 36 (1926).

Peucedanum multivittatum Maxim. var. *linearilobum* Tatew., Rep. Veg. Mt. Apoi: 102 (1928).

キレハノハクサンボウフウ

Distr.: The same with typical form, frequently found in Mt. Apoi in Hokkaido and northern regions of the Hida mountain ranges in C. Honshu.

Sect. 3. **Selinoides** DC., Prod. **4**: 150 (1830).

3. **Peucedanum therebinthaceum** (Fisch.) Fisch. ex DC., Prod. **4**: 179 (1830), pro syn., ut *therebinthinaceum*; Turcz. in Bull. Soc. Nat. Mosc. **18**: 743 (1844); H.Hara, Enum. Sperm. Jap. **3**: 318 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 133, f. 71 (1958); Schischk., Fl. USSR. **17**: 182 (1974); M.Sheh, Fl. Reip. Popul. Sinic. **55** (3): 156 (1992); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 301 (1999).

Selinum terebinthaceum Fisch. ex Trevir. in Ind. Sem. Hort. Wratisl. Append. **3**: 3 (1821), not seen; Spreng., Syst. Veg. **1**: 909 (1825).

Peucedanum deltoideum Makino ex Yabe,

Rev. Umbel. Jap.: 99, t. 3, f. 63 (1902).

Peucedanum paishanense Nakai in Bot. Mag. Tokyo **31**: 101 (1917).

Kitagawia terebinthacea (Fisch.) Pimenov in Bot. Zhurn. **71**: 943(1986).

var. **therebinthaceum**.

カワラボウフウ

Japan: Hokkaido, Honshu, Shikoku and Kyushu. In sunny grassy places; lowlands to 800 m.

Distr.: Japan, Korea, Manchuria, Mongolia, Sachalin, E. Siberia and Dahuria.

var. **aciculare** T.Inoue in J. Jpn. Bot. **32**: 6 (1957).

Peucedanum therebinthaceum (Fish.) Fish. f. *aciculare* (T.Inoue) H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 301 (1999).

モイワボウフウ

Japan: Hokkaido: Sapporo (Moiwayama and Toyohira). In dry river beds or on rocks.

Key to the varieties of *Peucedanum therebinthaceum*

A. Ultimate segments of leaves oblong-ovate to lanceolate, 1–2 mm wide ....var. *therebinthaceum*

A. Ultimate segments of leaves linear to linear-lanceolate, less than 0.2 mm wide ....var. *aciculare*

Sect. 4. **Oreoselinum** (Adans.) Reichenb., Handb. Naturl. Pflanzensyst. d. Gewachsk: 449 (1837), not seen; Schischk., Fl. USSR. **17**: 188 (1951).

4. **Peucedanum longeradiatum** (Maxim.) Yamazaki in J. Jpn. Bot. **69**: 114 (1994).

Selinum longeradiatum Maxim. in Bull. Acad. Sci. St.-Pet. **31**: 50 (1886).

Cnidium longeradiatum (Maxim.) Yabe, Rev. Umbel. Jap.: 61 (1902).

Angelica longeradiata (Maxim.) Kitag. in Bot. Mag. Tokyo **51**: 659 (1937); H.Hara, Enum. Sperm. Jap. **3**: 297 (1954); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 292 (1999).

ツクシゼリ

Distr.: W. Honshu (Okayama Pref.) and Kyushu. In more or less dry meadows on mountains; 900–1600 m. Endemic.

As the mericarp of this species has protruding lateral ribs, it has been frequently treated under the genus *Angelica*. However, this species has a relation with Eastern Asiatic species of *Peucedanum* such as *P. coreanum* Nakai, *P. caespitosum* H.Wolff, *P. macilentum* Franch. etc., so this species is treated under the genus *Peucedanum*.

5. **Peucedanum yakushimense** (Masam. & Ohwi) Yamazaki in J. Jpn. Bot. **69**: 114 (1994).

Cnidium yakushimense Masam. & Ohwi in Act. Phytotax. Geobot. **4**: 66 (1935).

Angelica longeradiata (Maxim.) Kitag. var. *yakushimensis* (Masam. & Ohwi) Kitag. in Bot. Mag. Tokyo **51**: 659 (1937); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 292 (1999).

ヤクシマツクシゼリ

Distr.: Kyushu, Yakushima. On rocks in mountains; 1600–1800 m. Endemic.

Subtrib. 2. **Angelicinae** Drude

Drude in Engl. & Prantl., Nat. Pflanzenfam. III, **8**: 215 (1898).

24. **Glehnia** F.Schmidt ex Miq.

Miq. in Ann. Mus. Bot. Lugd.-Bat. **3**: 61 (1867).

Phellopteris Benth. in Benth. & Hook. f. Gen. Pl. **1**: 905 (1867).

1. **Glehnia littoralis** F.Schmidt. ex Miq. in Ann. Mus. Bot. Lugd.-Bat. **3**: 61 (Jan.–Jul. 1867); H.Hara, Enum. Sperm. Jap. **3**: 309 (1954); Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 87, f. 45 (1958); Schishk. Fl. USSR. **17**: 42 (1974); T.Wang, Fl. Reip. Popul. Sinic. **55** (3): 77, f. 33 (1992); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 285 (1999).

Cymopteris ? *littoralis* A.Gray, Bot. Jap.:

391 (1859), nom. nud.

Phellopteris littoralis (A.Gray) Benth. in Benth. & Hook. f., Gen. Pl. **1**: 905 (Sep. 1867).

ハマボウフウ

Japan: S. Kuriles, Hokkaido, Honshu, Shikoku, Kyushu and Ryukyu. On sandy beaches.

Distr.: Japan, Korea, Taiwan, N. to S. China, Manchuria, Sakhalin, Ochotsk region and Pacific Coast of N. America.

25. **Conioselinum** Fisch. ex Hoffm.

Hoffm., Gen. Umbell. ed. **1**: 180 (1814).

A. Leaves thickly membranaceous, first and second segments acute; fruits oblong or ellipsoid, 5–7 mm long, 3–4 mm across, lateral wings 1–1.5 mm wide ....1. *C. kamtschaticum*

A. Leaves thinly membranaceous, first and second segments acuminate; fruits ellipsoid or ovoid-ellipsoid, 3–4 mm long, 2–2.5 mm across, lateral wings ca. 0.5 mm wide..................................2. *C. filicinum*

1. **Conioselinum kamtschaticum** Rupr., Beitr. Pfl. Russ. Reich **11**: 22 (1859); H.Hara, Enum. Sperm. Jap. **3**: 308, (1954); Schischk., Fl. USSR. **17**: 4 (1974); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 288 (1999).

Peucedanum wolffianum Fedde ex H.Wolff in Rep. Spec. Nov. Veget. **33**: 250 (1933).

Conioselinum gmelinii Coult. & Rose var. *kamtschaticum* (Rupr.) Hultén, Fl. Aleut.: 248 (1937).

Conioselinum filicinum (H.Wolff) H.Hara f. *maritimum* H.Hara, Enum. Sperm. Jap. **3**: 308 (1954), syn. nov.

Conioselinum chinense auct. non L.: Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 89 (1958), pro parte.

カラフトニンジン

Japan: S. Kuriles, Hokkaido and N. Honshu. In grassy places near the sea.

Distr.: Sakhalin, Hokkaido, Kuriles, Kamchatka, Bering region, Alaska and Pacific regions of N. America.

2. **Conioselinum filicinum** (Wolff) H.Hara in J. Jpn. Bot. **18**: 28 (1942); H.Hara, Enum. Sperm. Jap. **3**: 307 (1954); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 289 (1999).

Conioselinum univittatum auct. non Turcz.: Yabe, Rev. Umbel. Jap.: 72, t. 2, f. 42 (1902).

Peucidanum filicinum H.Wolff in Rep. Spec. Nov. **21**: 246 (1925).

Conioselinum nipponicum H.Hara in J. Jpn. Bot. **17**: 631, f. 52 (1941).

Conioselinum chinense auct. non L.: Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 89, t. 46 (1958), pro parte.

ミヤマセンキュウ

Distr.: Hokkaido and N. to C. Honshu. In alpine meadows; 2000–2700 m in Honshu, lowlands to 1700 m in Hokkaido. Endemic.

26. **Coelopleurum** Ledeb.

Ledeb., Fl. Ross. **2**: 361 (1844).

A. Ultimate segments of leaves rhombic-ovate, 3–8 cm long, 2–4.5 cm wide, shortly acute at apex; fruits 6–7 mm long, 4 mm across; growing near the sea .... 1. *C. gmelinii*

A. Ultimate segments of leaves ovate to lanceolate, 1.5–5 cm long, 0.5–3cm wide, acute to acuminate at apex; fruits 4–6 mm long, 2–4 mm across; growing in alpine regions.

  B. Ultimate leaf-segments ovate to narrowly ovate, acute at apex, 2–5 cm long, 1–3 cm wide; rays of umbel densely pubelulent; fruit narrowly ellipsoid, 5–6 mm long, 2–2.5 mm across ....2. *C. rupestre*

  B. Ultimate leaf-segments narrowly ovate to lanceolate, 1.5–3 cm long, 1–1.5 cm wide, acuminate at apex; rays of umbel papillate-puberulent; fruits ellipsoid, 4–6 mm long, 2.5–4 mm across........................3. *C. multisectum*

1. **Coelopleurum gmelinii** (DC.) Ledeb., Fl. Ross. **2**: 361 (1844); Schischk., Fl. USSR. **17**: 33 (1974); H.Ohba in K.Iwats. & al. eds., Fl. Jap. **IIc**: 287 (1999).

Archangelica gmelinii DC., Prodr. **4**: 170 (1830).

Coelopleurum lucidum (L.) Fernald var. *gmelinii* (DC.) H.Hara in J. Fac. Sci. Univ. Tokyo, sect. 3, Bot. **4** (2): 91 (1952).

Angelica lucida auct. non L.: Hiroe & Constance in Univ. Calif. Publ. Bot. **30**: 94, f. 47 (1958), pro parte, excl. syn. *Angelica multisecta* Maxim. and *Angelica trichocarpa* H.Hara.

エゾノシシウド，エゾノハマウド

Japan: S. Kuriles and Hokkaido. In meadows near the sea.

Distr.: Hokkaido, Sakhalin, Kuriles, Kamchatka, Ochotsk region, Amur and Ussuri.

2. **Coelopleurum rupestre** (Koidz.) Yamazaki in J. Jpn. Bot. **69**: 182 (1994).

Angelica rupestris Koidz. in Bot. Mag. Tokyo **30**: 79 (1916).

Angelica trichocarpa H.Hara in J. Jpn. Bot. 11: 624, f. 22 (1935).

Coelopleurum trichocarpum (H.Hara) Kitag. in Rep. Inst. Sci. Res. Manch. **2**: 280 (1938).

Coelopleurum lucidum (L.) Fern. var. *trichocarpum* (H.Hara) H.Hara, Enum. Sperm. Jap. **3**: 307 (1954).

Coelopleurum multisectum (Maxim.) Kitag. f. *trichocarpum* (H.Hara) Kitag. in Bull. Nat. Sci. Mus., n. s. **5**: 17 (1960).

Coelopleurum multisectum (Maxim.) Kitag. f. *epichnoum* Kitag. in J. Jpn. Bot. **42**: 99 (1967).

Coelopleurum multisectum (Maxim.) Kitag. var. *trichocarpum* (H.Hara) H.Ohba in K.Iwats & al. eds., Fl. Jap., **IIc**: 288 (1999).

エゾヤマゼンゴ

Distr.: Hokkaido. In alpine meadows or on rocks;1500–1700m. Endemic.

3. **Coelopleurum multisectum** (Maxim.) Kitag. in Bot. Mag. Tokyo **50**: 366 (1936); H.Hara, Enum. Sperm. Jap. **3**: 307 (1954); H.Ohba in K.Iwats. & al. eds., **IIc**: 288 (1999).

Angelica multisecta Maxim. in Bull. Acad. Sci. St.-Pet. **31**: 50 (1886).

ミヤマゼンゴ

Distr.: C. Honshu (Hida and Kiso mountain ranges, Akaishi mountain ranges and Mt. Yatsu). In alpine meadows on stony places; 2000–3000 m. Endemic.

山崎　敬：日本のセリ科植物 II

ここでは14属の分類を扱った．カノツメソウ属 *Spuriopimpinella* は花に永存性の萼片がある点で，ミツバグサ属 *Pimpinella* から区別される一群として認められるが，属を別にするほどの特徴とは考えられないので，中国で扱っているように，ミツバグサ属として扱った．シラネニンジン属 *Tilingia* は，果実の稜の張り出す程度の違いで，マルバトウキ属 *Ligusticum* から区別されているが，大きな差異は見いだせないので，中国での処置と同様にマルバトウキ属として扱った．このうちのシラネニンジンを，ロシアではハマゼリ属 *Cnidium* に入れているが，マルバトウキ属として扱うのが妥当である．